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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/045,797	01/09/2002	Thomas B. Berg		2836
25253	7590	10/14/2003		
			EXAMINER	
			MOAZZAMI, NASSER G	
			ART UNIT	PAPER NUMBER
			2187	
DATE MAILED: 10/14/2003				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)
	10/045,797	BERG ET AL.
	Examiner Nasser G Moazzami	Art Unit 2187

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If no period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 09 January 2002.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1-7,9,10,12-15 and 18-24 is/are rejected.
- 7) Claim(s) 8,11,16 and 17 is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) The proposed drawing correction filed on _____ is: a) approved b) disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All b) Some * c) None of:
1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. _____.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) The translation of the foreign language provisional application has been received.
- 15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2 .
- 4) Interview Summary (PTO-413) Paper No(s). _____ .
- 5) Notice of Informal Patent Application (PTO-152)
- 6) Other: _____ .

DETAILED ACTION

1. claims 1-24 are presented for examination in this application.
2. The Information Disclosure Statement submitted by applicant on 01/09/2002 has been considered. Please see attached PTO-1449.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-7, 9-10, 12-15, and 18-24 are rejected under 35 U.S.C. 102(b) as being anticipated by Harriman et al., hereinafter Harriman (U.S. Patent No. 5,313,624).

As for claims 1-2, 9-10, 12-15, 18-19, and 21-24, Harriman teaches a system and its method for handling data for data processing means utilizing a plurality of memory registers **[DRAM banks}** comprising: a first multiplexor means **[multiplexor 306 (see Fig. 3)]** for receiving data from said processing means coupled to said memory registers; a second multiplexor means **[multiplexor 309 (see Fig. 3)]** for outputting data from said memory means coupled to said memory registers; a plurality of registers configured into slices of arrays, each slice having two independent inputs coupled to

said first multiplexor means to receive data input from said first multiplexor means and each slice having two independent outputs to convey data to said second multiplexor means [**CPU registers 307A-307D (see Fig. 3)**]; means to track the identification and location of data being stored to said registers from said first multiplexor means; and means to select identified data within said registers means for output to said second multiplexor means [**it is embedded in the reference, since data is being transferred to/from CPU registers to specific banks of DRAM**]; number of memories is equal to the number of words [**the invention can be used to couple a 32 bit CPU to two banks (column 6, line 61 bridging column 7, line 4)**].

As for claims 3, and 4, Harriman discloses that the first and second multiplexors comprises eight ports coupled to said registers means [**other configurations, such as eight or sixteen memory banks can be implemented (column 7, lines 2-4)**].

As for claims 5, and 6, Harriman discloses that the first multiplexor comprises a four to one multiplexor and second multiplexor comprises a one to four multiplexor [**four way multiplexor; the four words are assembled**].

As for claims 7, and 20, Harriman discloses that memory access can be overlapped with data transfer [**see column 16, lines 23-26**].

Allowable Subject Matter

5. Claims 8, 11, and 16-17 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

U.S. patent No. 6,564,306 (Dugan et al.)

U.S. Patent No. 5,261,057 (Coyle et al.)

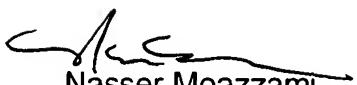
U.S. Patent No. 5,115,411 (Kass et al.)

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nasser G Moazzami whose telephone number is (703) 305-0017. The examiner can normally be reached on 7:00AM-5:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Donald Sparks can be reached on (703) 308-1756. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

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8. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 746-7240.



Nasser Moazzami

10/10/2003